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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,611	09/28/2004	Tatsuya Kawakami	S1C-04-032	5610

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EXAMINER	
LUONG, VINH	
ART UNIT	PAPER NUMBER
3656	
MAIL DATE	DELIVERY MODE
11/21/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/711,611	KAWAKAMI, TATSUYA	
	Examiner	Art Unit	
	Vinh T. Luong	3656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 June 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) *22* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21 and 23-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 January 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 3656.

2. The amendments filed on August 19, 2008 and June 3, 2008 have been entered.

3. Applicant's election of the species of FIGS. 5-6B in the reply filed on January 16, 2008 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse. MPEP § 818.03(a).

4. Claim 22 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on January 16, 2008.

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 2-21 and 26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 2 recites "the biasing mechanism applies the biasing force to ***at least one of*** the first engaging member ***or*** the second engaging member at a biasing location" (emphasis added).

The alternative expression "or" is not supported by the application as filed. See MPEP

2163.01. A review of the original disclosure shows that, e.g., Applicant's abstract and summary of the invention states: "A biasing mechanism applies a biasing force to bias the first engaging member ***and*** the second engaging member towards each other, wherein the biasing mechanism reduces the biasing force when the second engaging member moves" (emphasis added). Therefore, the specification provides support for the conjunctive term "and," not the alternative term "or" as now claimed.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 2-21 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites "the biasing mechanism applies the biasing force to *at least one of* the first engaging member ***or*** the second engaging member at a biasing location" (emphasis added).

The alternative expression "or" is inconsistent with the specification disclosure. See MPEP 2173.03. In fact, *e.g.*, Applicant's abstract and summary of the invention states: "A biasing mechanism applies a biasing force to bias the first engaging member ***and*** the second engaging member towards each other, wherein the biasing mechanism reduces the biasing force when the second engaging member moves" (emphasis added). Therefore, the alternative term "or" as amended is inconsistent with the conjunctive term "and" disclosed in the specification.

9. Claim 1 and Claims 2-21, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Campagnolo (US Patent No. 5,806,372).

Regarding Claim 1, Campagnolo teaches an apparatus for reducing an engaging force of an engaging member for a bicycle component comprising:

a first engaging member 20;

a movable second engaging member 22;

wherein the first engaging member 20 engages the second engaging member 22; and

a biasing mechanism 23 that is capable of applying a biasing force to bias the first engaging member 20 and the second engaging member 22 towards each other, wherein the biasing mechanism 23 reduces the biasing force when the second engaging member 22 moves. *Ibid.* col. 3, line 38+ and Claims 1-3.

Claim 1 and other claims below are anticipated by Campagnolo because Campagnolo teaches each and every positively claimed element in the claim. As noted, the "wherein" or "whereby" clause that merely states the inherent results of limitations in the claim adds nothing to the claim's patentability or substance. *Texas Instruments Inc. v. International Trade Commission*, 26 USPQ2d 1018 (Fed. Cir. 1993); *Griffin v. Bertina*, 62 USPQ2d 1431 (Fed. Cir. 2002); and *Amazon.com Inc. v. Barnesandnoble.com Inc.*, 57 USPQ2d 1747 (Fed. Cir. 2001).

Regarding Claim 2, the biasing mechanism 23 applies the biasing force to at least one of the first engaging member 20 and the second engaging member 22 at a biasing location, and wherein the biasing mechanism applies the biasing force to a different biasing location to reduce the biasing force when the second engaging member 22 moves as seen in FIG. 2.

Regarding Claim 3, the second engaging member 22 comprises a positioning unit 22 for a bicycle shift control device 10 (FIG. 1).

Regarding Claim 4, the first engaging member 20 comprises a positioning member 20 that engages the positioning unit 22 to maintain the positioning unit 22 in a selected position.

Regarding Claim 5, the biasing mechanism 23 applies the biasing force to the positioning member 20.

Regarding Claim 6, one of the positioning member 20 and the biasing mechanism 23 moves relative to the other one of the positioning member 20 and the biasing mechanism 23 to reduce the biasing force when the positioning unit 22 moves.

Regarding Claim 7, the positioning member 20 moves or is capable of moving in response to movement of the positioning unit 22.

Regarding Claim 8, the positioning member 20 moves or is capable of moving relative to the biasing mechanism 23 when the positioning unit 22 moves so that the biasing mechanism 23 applies the biasing force to the different biasing location.

Regarding Claim 9, the positioning member 20 moves or is capable of moving together with the positioning unit 22 when the positioning unit 22 moves.

Regarding Claim 10, the movement of the positioning member 20 causes the biasing mechanism 23 to apply the biasing force to the different biasing location.

Regarding Claim 11, the positioning unit 22 comprises a plurality of positioning teeth 22, and wherein the positioning member 20 comprises a positioning pawl 20 that engages selected ones of the plurality of positioning teeth 22 to maintain the positioning unit 22 in the selected position.

Regarding Claim 12, the positioning unit 22 and the positioning pawl 20 move relative to each other so that the positioning pawl 20 moves over at least one of the plurality of positioning

teeth 22, and wherein the biasing mechanism 23 applies the biasing force to the different biasing location so that the biasing force is reduced when the positioning member 20 moves over the at least one of the plurality of positioning teeth 22.

Regarding Claim 13, the biasing mechanism 23 increases or is capable of increasing the biasing force to the positioning member 20 after the positioning member 20 moves over the at least one of the plurality of positioning teeth 22.

Regarding Claim 14, the biasing mechanism 23 applies or is capable of applying the biasing force to substantially the same biasing location before and after the positioning member 20 moves over the at least one of the plurality of positioning teeth 22.

Regarding Claim 15, the positioning pawl 20 moves or is capable of moving relative to the biasing mechanism 23 when the positioning unit 22 moves so that the biasing mechanism 23 applies the biasing force to the different biasing location.

Regarding Claim 16, the positioning pawl 20 moves or is capable of moving together with the positioning unit 22 when the positioning unit 22 moves.

Regarding Claim 17, the movement of the positioning member 20 inherently causes the biasing mechanism 23 to apply the biasing force to the different biasing location.

Regarding Claim 18, see a mounting member 24 that supports the positioning unit 22 and the positioning pawl 20, and wherein the biasing mechanism 23 is secured relative to the mounting member 24.

Regarding Claim 19, the positioning unit 22 rotates or is capable of rotating to move the positioning pawl 20.

Regarding Claim 20, the biasing mechanism 23 comprises a spring 23.

Regarding Claim 21, the biasing mechanism 23 comprises a coil spring 23.

10. Claims 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Hiura (US Patent No. 6,508,341).

Regarding Claim 23, Hiura teaches an apparatus comprising:

a first engaging member 4/5;

a movable second engaging member 3;

wherein the first engaging member 4/5 engages the second engaging member 3;

a biasing mechanism 6/7 that applies a biasing force to bias the first engaging member 4/5 and the second engaging member 3 towards each other, wherein the biasing mechanism 6/7 reduces the biasing force when the second engaging member 3 moves; and

wherein the movement of the second engaging member 3 is capable of causing the biasing mechanism 6/7 to reduce the biasing force applied to the first engaging member 4/5. *Texas Instruments Inc. v. International Trade Commission*; *Griffin v. Bertina*; and *Amazon.com Inc. v. Barnesandnoble.com Inc., supra.*

Claim 23 and other claims below are anticipated by Hiura because Hiura teaches each and every positively claimed element in the claims. As noted, the recitation "for reducing an engaging force of an engaging member for a bicycle component" denotes an intended use. It is well settled that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then, it meets the claim. In the instant case, Hiura's spring 6/7

reduces the biasing force when the second engaging member 3 moves due to the lost motion causing by the slot 20/26, therefore, the claims are "fully met" by Hiura.

Regarding Claim 24, Hiura teaches an apparatus comprising:

a first engaging member 4/5;

a movable second engaging member 3;

wherein the first engaging member 4/5 engages the second engaging member 3;

a biasing mechanism 6/7 that applies a biasing force to bias the first engaging member 4/5 and the second engaging member 3 towards each other, wherein the biasing mechanism 6/7 reduces the biasing force when the second engaging member 3 moves; and

wherein the biasing force applied by the biasing mechanism 6/7 is capable of changing from a first value to a second value while the second engaging member 3 is moving and the first engaging member 4/5 is contacting the second engaging member 3.

Regarding Claim 25, Hiura teaches an apparatus comprising:

a first engaging member 4/5;

a movable second engaging member 3;

wherein the first engaging member 4/5 engages the second engaging member 3;

a biasing mechanism 6/7 that applies a biasing force to bias the first engaging member 4/5 and the second engaging member 3 towards each other, wherein the biasing mechanism 6/7 reduces the biasing force when the second engaging member 3 moves; and

wherein the biasing mechanism 6/7 is capable of applying the biasing force to the first engaging member 4/5 at a biasing location, and wherein the biasing mechanism 6/7 applies the biasing force to a different biasing location on the first engaging member 4/5 to reduce the

biasing force when the second engaging member 3 moves due to the lost motion causing by the slot 20/26.

11. Claim 26, as best understood, is rejected under 35 U.S.C. 102(b) as being anticipated by Liu (US Patent 6,497,163 B2).

Liu teaches an apparatus for reducing an engaging force of an engaging member for a bicycle component comprising:

a first engaging member 35;

a movable second engaging member 25;

wherein the first engaging member 35 engages the second engaging member 25;

a biasing mechanism 36 that applies a biasing force to bias the first engaging member 35 and the second engaging member 25 towards each other, wherein the biasing mechanism 36 reduces the biasing force when the second engaging member 25 moves;

wherein the biasing mechanism 36 applies the biasing force to at least one of the first engaging member 35 *or* the second engaging member 25 at a biasing location (FIG. 5), and wherein the biasing mechanism 36 applies the biasing force to a different biasing location (FIG. 6) to reduce the biasing force when the second engaging member 25 moves; wherein:

the second engaging member 25 comprises a positioning unit 25, 45, 48 for a bicycle shift control device;

the first engaging member 35 comprises a positioning member 35 that engages the positioning unit 25, 45, 48 to maintain the positioning unit 25, 45, 48 in a selected position;

the biasing mechanism 36 applies the biasing force to the positioning member 35;

one of the positioning member 35 *or* the biasing mechanism 36 moves relative to the other one of the positioning member 35 *or* the biasing mechanism 36 to reduce the biasing force when the positioning unit 25, 45, 48 moves (FIGS. 5 and 6);

the positioning member 35 moves or is capable of moving in response to movement of the positioning unit 25, 45, 48 (FIGS. 5 and 6); and

the positioning member 35 moves around a rotational axis 44 of the positioning unit 25, 45, 48 (FIGS. 4-8).

Claim 26 is anticipated by Liu because Liu teaches each and every positively claimed element in the claim. On the one hand, Liu's spring 36 reduces the biasing force when the second engaging member 25 moves due to the lost motion causing by the slot 19, therefore, the claims are "fully met" by Liu. On the other hand, the "wherein" or "whereby" clause that merely states the inherent results of limitations in the claim adds nothing to the claim's patentability or substance. *Texas Instruments Inc. v. International Trade Commission*; *Griffin v. Bertina*; and *Amazon.com Inc. v. Barnesandnoble.com Inc., supra.*

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Lesche (slot 15), Kanbe (slot 27d), and Wu et al. (slot 45).

13. Applicant's arguments filed June 3, 2008 have been fully considered but they are not persuasive.

Regarding the rejection under 35 USC 102 based on Campagnolo, Applicant contended:

> *The office action refers to either pawl (20) or tooth (31) as a first engaging member*, and the office action refers to toothed wheel (22) (and the corresponding first teeth (21) or second teeth (31)) as a movable second engaging member. However, as an initial matter, since upshift lever (11) and tooth (31) are always biased *away* from toothed wheel (22) by spring (29), spring (29)

> cannot be interpreted to be a biasing mechanism that applies a biasing force to bias the first engaging member (31) and the second engaging member (32) *towards* each other as recited in claim 1. (Emphasis added).

As stated, the previous rejection refers to either pawl (20) or tooth (31) as a first engaging member. To simplify the issue, in the instant Office action, the Examiner withdraws the rejection based on the interpretation that the tooth 31 is considered as the first engaging member. Applicant's arguments regarding the member 31 are deemed to be moot.

Applicant further asserted:

> As for the alleged first engaging member (20) and second engaging member (22), the only time toothed wheel (22) moves is when tooth (31) engages one of the second teeth (32) during the operation of upshift lever (11) and when pawl (20) engages one of the first teeth (21) during the operation of downshift lever (10). During the time that tooth (31) engages one of the second teeth (32) during the operation of upshift lever (11), pawl (20) is stationary in the position shown in Fig. 2, *so clearly no change in biasing force results from spring (23).* During the time that pawl (20) engages one of the teeth (21) during the operation of downshift lever (10), pawl (20) is stationary in the engaged position relative to teeth (21), *so clearly no change in biasing force results from spring (23) when second engaging member (22) moves*. (Emphasis added).

The Examiner respectfully submits that it is well settled that similar structures are expected to behave similarly. See *In re King*, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986); *In re Merck & Co.*, 231 USPQ 375 (Fed. Cir. 1986).

In the instant case, Campagnolo's coil spring 23 is compressed or expanded in the same manner as Applicant's coil spring 208 in Applicant's embodiment of FIG. 5. Therefore, when Campagnolo's first engaging member/pawl 20 is engaged with the teeth 21 of second engaging member 22, the pawl 20 slides on the teeth 21 of the second member 23 and moves therewith.

Campagnolo, col. 4, lines 25-54. When the pawl 20 slides upwardly or downwardly following the contour of the teeth 21, the spring 23 is expanded or compressed therewith due to the variation of the contour of the teeth 21. Hence, the biasing force resulted from the spring 23 varies with the movement of the pawl 20 on the teeth 21. In the same manner, the biasing force of Applicant's spring 208 varies when the pawl 41 slides on the teeth 134A, 134B, 134C as shown in FIG. 5. Simply put, Applicant's contentions that the spring force of Campagnolo is constant are in direct conflict with the strikingly similarities shown in Applicant's FIG. 5 and Campagnolo's FIG. 2.

As noted, Applicant's Claim 1 is generic. Thus, Claim 1 covers Applicant's embodiment of FIG. 5. Campagnolo teaches Applicant's embodiment of FIG. 5, *a fortiori*, Claim 1 is anticipated by Campagnolo.

Applicant further stated:

> The office action ignores the language "wherein the biasing mechanism reduces the biasing force when the second engaging member moves" recited in claim 1 because this feature allegedly is the inherent result of the other structures recited in the claim. However, the mere fact that a first engaging member is biased towards a second engaging member, wherein the first engaging member engages the second engaging member, does not inherently result in a reduction of the biasing force when the second engaging member moves. This lack of a reduction in biasing force is readily seen from Campagnolo, so the wherein clause in claim 1 cannot be ignored.

The office action did not ignore the "wherein" clause as Applicant alleged. In fact, as explained above, when Campagnolo's pawl 20 slides up and down on the valleys and peaks of the teeth 21, the length of spring 23 varies therewith. Thus, the spring 23 expands or compressed with the movement of the pawl 20 on the teeth 21. Hence, the biasing force of the spring 23

inherently varies in the same manner as Applicant's spring 208 in the embodiment of FIG. 5. Therefore, the "wherein" clause is "fully met" by Campagnolo.

For the foregoing, the previous rejection based on Campagnolo is respectfully maintained as a matter of law.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinh T. Luong whose telephone number is 571-272-7109. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vinh T Luong/
Primary Examiner, Art Unit 3656